

Quality of Service

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Quality of Service Refers to...

- Electrical Power
 - Type
 - Voltage
 - Current
 - Reliability
 - Availability
- Electrical Energy
 - Amount
 - When delivered
 - Comparative Cost
 - How its used

Service Quality Is Relative: Whose Shoes Would You Rather Be In?

- Unelectrified Community
 - no access to mains power
 - good access to conventional energy from kerosene, candles, small generator
 - few electrical loads
 - minimal economic activity
 - spend it if you have it!
 - minimal expectations: minimal delivery
- Semiconductor company
 - grid-connected, 24 hour power
 - scary reserve margins, rumors of grid meltdown
 - millions invested in equipment, work-in-process process inventory and unproductive UPS system
 - confusing, costly, uncertain electricity pricing
 - high expectations: so-far, so-good, but.....

This Would Appear to Be a High Quality Service Offering

- Before

- no access to mains power
- good access to conventional energy from kerosene, candles, small generator
- few electrical loads
- minimal economic activity
- spend it if you have it!
- No one else to fix if it breaks
- minimal expectations: minimal delivery

- After

- mini-grid and solar home systems, 24 hour power
- now also have access to battery charging
- able to operate complex motors, compressors, etc
- prepayment meters, spend it if you have it,
- cost is \leq to previous inferior conventional energy
- service company fixes
- expect service, get service

A High Quality Offering

- Before
 - kerosene for lighting, dry cells for radio, auto battery for TV
 - hassle to charge battery
 - battery unavailable for 1 to 2 days
 - kerosene unhealthy
 - homeowner maintains
 - 8% of family income
- After
 - 150 Wh/day (either AC or DC)
 - no more “lead schlepping”
 - 24 hour power
 - clean electricity
 - service company maintains
 - 8% of family income